

PATENT SPECIFICATION

929,482

DRAWINGS ATTACHED.

929,482



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COMPLETE SPECIFICATION.

Improvements in and relating to Binders for Loose-Leaves, Periodicals and the like.

I, JACQUES MULLER, a French Citizen, of 123 Avenue du General de Gaulle, La Garenne-Colombes, France, do hereby declare the invention, for which I pray that 5 a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

10 The invention has reference to improvements in and relating to binders for loose leaves, catalogues, reviews, periodicals, folders, prospectuses, and the like, it being the object of the invention to provide a binder which is both simple and inexpensive to manufacture and which permits of the 15 easy insertion and withdrawal of the documents, in such manner that rapid filing is possible and, above all, in such manner that the said documents are entirely visible when 20 they are bound.

When documents are bound in some conventional binders one of the longitudinal edges of the documents has perforations formed in it which not only damage the 25 documents but also prevent them from being completely opened and consequently also from being viewed freely when they are pressed and joined together one after the other. It is thus difficult, and sometimes 30 impossible, to read the whole of their text so it is frequently necessary to withdraw them from the binder, and this is inconvenient.

35 The novel binder forming the subject of the present invention obviates these disadvantages. It relates, on the one hand, to a binding system and on the other hand to a form of preparation of the documents previous to their being placed in position in 40 the binding system, with a view to achieving

[Price 4s. 6d.]

the desired result, namely, a book which can be freely and completely opened.

The binder according to the invention 45 comprises a strip of metal, plastic or the like provided with relatively spaced hinge eyes at its longitudinal edges, bowed elements extending crosswise of the strip at one face thereof with their ends in the respective spaces between the eyes, said ends being formed as hinge eyes complementary to the hinge eyes on the strip, and hinge pins in the hinge eyes of the strip and of the bowed elements, at least one of said pins being easily withdrawable from the eyes receiving it.

50 The binder may comprise a spine secured to that face of the strip opposite to the face at which the bowed elements are located and a cover clamped to the binder by the strip and the spine. Alternatively the binder may comprise two cover halves each 55 hinged at one edge to the respective edges of the strip by said pins, said halves being provided for this purpose with hinge eyes complementary to the hinge eyes on the strip.

60 A binder according to the invention also 65 comprises perforated tabs, which may be in the form of lugs or strips made of strong paper, cardboard, plastic, a light metal, etc., and which are secured on one of their longitudinal edges to an edge of the loose leaves or the like by any desired means (clips, rivets, eyelets, sticking) in such manner that they project from the edge of the loose leaves or the like, disclosing the perforations into which the bowed elements of the binder are introduced. Thus, this arrangement permits complete and free viewing of the documents due to the provision of the said lugs or strips which are the only elements pressed

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against each other in the binder and which permit the complete disengagement of the said documents from the binder when desired.

5 Further features will be disclosed in the following description which discusses a number of embodiments, which are in no way limitative, of the invention, with reference to the accompanying drawings, wherein:

10 Figure 1 shows a portion of a binder in which the bowed elements are raised;

15 Figure 2 shows the same binder system with the bowed elements locked;

Figure 3 is a partial cross-section through the binder;

20 Figures 4 and 5 show a variant having an "extra-flat" back or spine, seen in elevation and in plan respectively;

25 Figure 6 shows a further variant wherein the cover is pivotally mounted on the strip of the binder;

Figure 7 shows an assembly view of the book obtained with this novel binder;

30 Figure 8 shows a document provided with perforated lugs;

Figure 9 shows a further document provided with a perforated strip or tape; and

35 Figures 10 to 19 show perforated strips and lugs with their means of clamping to the documents.

According to the invention, the binder consists of a back or spine 1 which may or may not be curved (Figures 1, 2 and 3) 35 made from a plastic, metal or other appropriate material, and secured by any suitable means (rivets, screws, crimping, etc.) to a strip 2 of metal, plastic or the like provided at its longitudinal edges with relatively spaced hinge eyes 3 and 4 of U or channel section. The ends of removable bowed elements 5 enter the spaces between the hinge eyes 3 and 4 and are in the form of hinge eyes which are complementary to the hinge eyes 3 and 4. These elements are mounted on pins 6 and 6¹ introduced into the hinge eyes 3 and 4 and into the hinge eyes on the said elements so as to serve as hinge pins therefor and to lock the bowed members in their turned-down position. Either pin is easily withdrawable so that the elements can hinge on whichever one of the pins is not withdrawn. A cover 7 is 50 clamped at the centre thereof, between the back 1 and the strip 2.

55 In an "extra-flat" embodiment of the binder (Figures 4 and 5), the binder consists of a spine 8 made from a simple plate of metal, plastic or the like, and maintained by rivets or the like against the strip 2.

In a second variant (Figure 6), the spine is dispensed with and, in this case, use is made of two cover halves 9 and 10 which are sufficiently strong to allow of their being

provided with hinge eyes 11 and 12 pivotally mounted on the hinge pins 6 and 6¹.

60 The binder may of course contain conventionally perforated documents but, in order that the latter may be entirely freely viewed, the binder is preferably provided with perforated lugs 13 (Figure 8) or a longitudinal strip (Figure 9) which is also formed with perforations 15, said lugs or strip being adapted to be attached to the sheets to be bound. The lugs 13 are regularly spaced, their spacing corresponding to that of the bowed elements of the binder. The perforations in the strip 14 are formed with the same spacing. The perforations may have any desired shape, but experience has shown that in order to achieve better resistance to tearing it is preferably to give them an elongated shape (rectangular with rounded corners, oblong apertures); the section of the bowed members is of course of the same shape so as to permit their introduction and the free displacement of the documents to be bound, the book produced being shown in Figure 7.

65 The lugs or strips may be made from any suitable material (strong paper, cardboard, plastic, thin metal, or the like). They may be fixed to the documents by any desired means (clips, rivets, sticking); Figures 10 to 19 show several examples of securing by 70 means of wire staples.

75 In a first example (Figures 10 and 11) the lugs 13 consist of a piece of cardboard, thin metal or the like of rectangular shape formed with two perforations 15. The lugs thus formed are folded in their centre so that the perforations register, whereafter they are stapled to the back of a document consisting of one or more folded leaves.

80 In a second example (Figures 12 and 13), the document 16 is provided with a perforated longitudinal strip 14 obtained by folding and stapling in the same manner as the preceding lugs.

85 Figures 14, 15 and 16 show a third example of the securing of a strip 17, which, in this case, is formed by triple folding in order that it may project beyond the edges of a document or an assembly of documents disposed face to face, so that staples 18 90 positioned as near as possible to their fold or to one of their longitudinal edges, simultaneously maintain the said documents and the folded strip. This mode of securing will be used only in the case of documents having a sufficiently wide margin to prevent any possibility of interruption of reading. The strips 17 may of course be replaced by lugs of the same nature.

95 In an identical transverse stapling method, the strip 14 (or the lugs) is inserted between the documents. It may be formed by folding (Figure 17) or manufactured from a thicker material (Figures 18 and 19).

- It will thus be easy to understand the usefulness of a binder according to the invention which can be used indefinitely, documents which have became out of date being replaced where required by new ones. Finally, the back or spine of the binder may be decorated or formed with inscriptions during the moulding process, or imprinted intaglio or in relief by an appropriate stamping method.
- It is clear that, within the scope of the appended claims it will be possible to modify in any appropriate manner both the binder and the lugs or strips used with the said binder, and also the mode of securing the said lugs or strips, etc., which will be selected in accordance with requirements and with the shape and dimensions of the documents to be bound.
- 20 WHAT I CLAIM IS:
1. A binder for loose leaves, loose folders, periodicals and the like comprising a strip of metal, plastic or the like provided with relatively spaced hinge eyes at its longitudinal edges, bowed elements extending crosswise of the strip at one face thereof with their ends in the respective spaces between the eyes, said ends being formed as hinge eyes complementary to the hinge eyes on the strip, and hinge pins in the hinge eyes of the strip and of the bowed elements, at least one of said pins being easily withdrawable from the eyes receiving it.
 2. A binder as claimed in Claim 1, comprising a spine secured to that face of the strip opposite to the face at which the bowed elements are located and a cover clamped to the binder by the strip and the spine.
 3. A binder as claimed in Claim 1, comprising two cover halves each hinged at one edge to the respective edges of the strip by said pins, said halves being provided for this purpose with hinge eyes complementary to the hinge eyes on the strip.
4. A binder as claimed in Claim 1 or 3, wherein the hinge eyes on the strip are of channel section.
5. The combination with a binder as claimed in Claim 1, 2, 3 or 4 of tabs or strips which are secured to the binder by the bowed elements passing through perforations in the tabs or strips, said tabs or strips when applied to loose sheets or the like serving to attach the sheets or the like to the binder.
6. The combination claimed in Claim 5, wherein the tabs or the strips are of single ply form.
7. The combination claimed in Claim 5, wherein the tabs or the strips are of two ply form formed by folding a single ply about centrally, the plies of each tab or strip having registering perforations.
8. The combination claimed in Claim 7, wherein each ply of each tab or strip is folded laterally away from the other ply along a line parallel with the central fold and is then folded away from the central fold so that the tab or strip at the edge furthest from the central fold is channel section for the reception of an edge of a periodical, a group of sheets, folders or the like.
9. The combination claimed in Claim 5, 6, 7 or 8, comprising folders, loose sheets and the like secured at one edge to the tabs or strips.
10. Binders substantially as herein described and shown in Figures 1 to 6 of the accompanying drawings.
11. The combinations comprising binders and tabs substantially as herein described and shown in the accompanying drawings.

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FIG.1

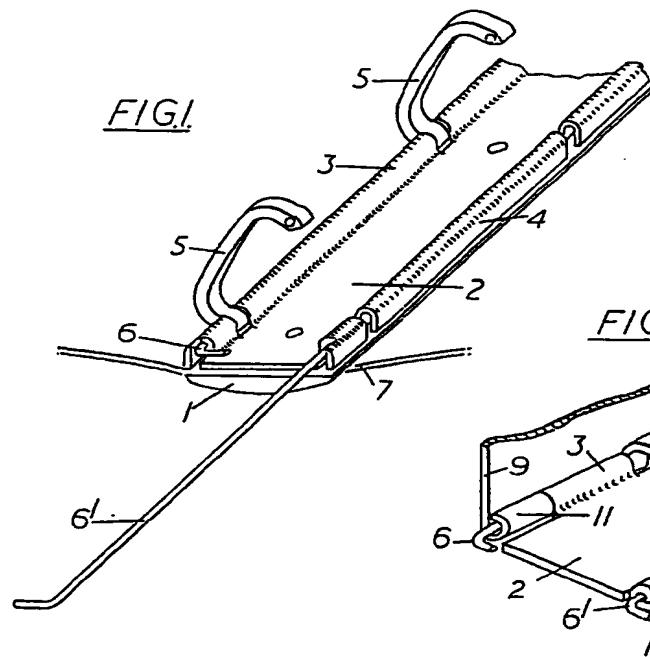


FIG.6

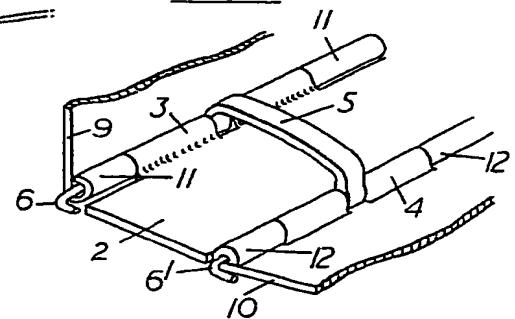
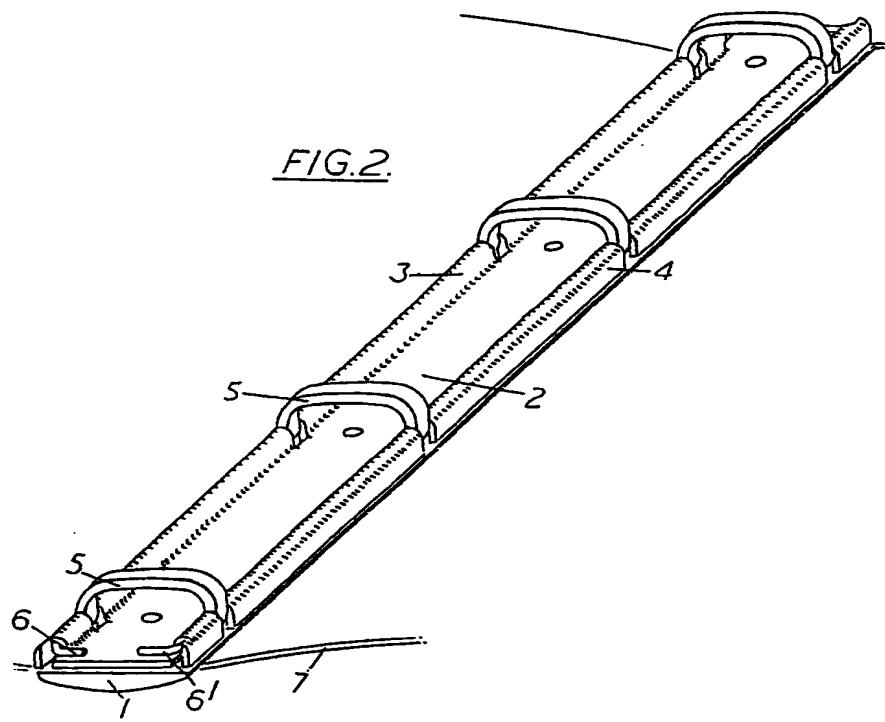


FIG.2



929,482 COMPLETE SPECIFICATION

2 SHEETS

This drawing is a reproduction of
the Original on a reduced scale.

SHEETS 1 & 2

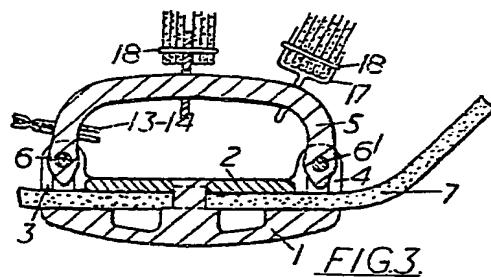


FIG.7

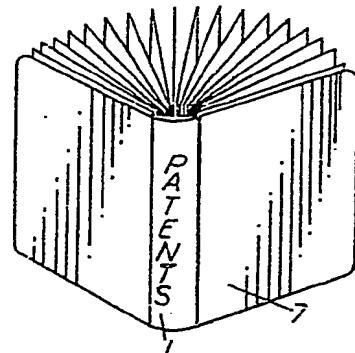
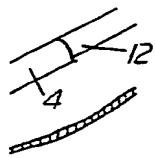


FIG. 8.

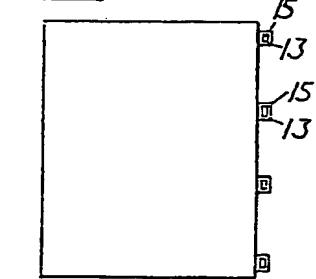


FIG. 9.

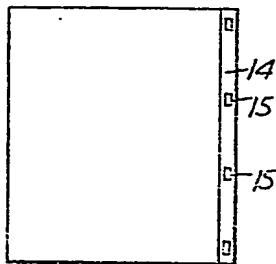
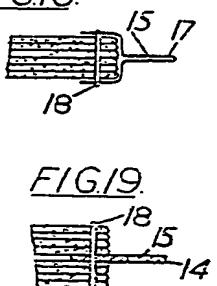


FIG. 16.



FIG/S

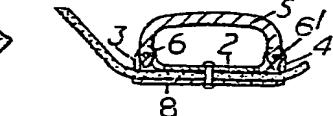
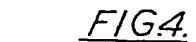


FIG5

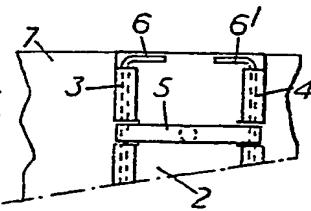


FIG. 10.

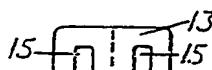


FIG12.

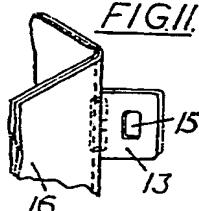


FIG. 13.

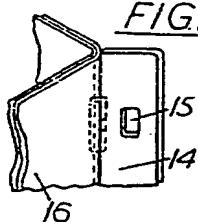


FIG.5.

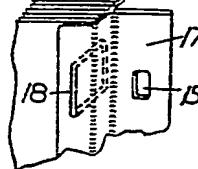
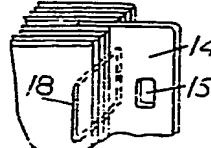
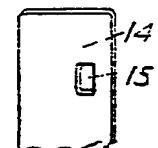


FIG 17



FIG/8.



929,482 COMPLETE SPECIFICATION
2 SHEETS This drawing is a reproduction of
the Original on a reduced
SHEETS 1 & 2

